## CLAIMS

1. A power source, comprising:

first and second batteries; and

a power management module configured to operate each of the first and second batteries in a pulse current discharge mode while supplying continuous current to a load.

2. The power source of claim 1 wherein the power management module comprises a switch control module, and a switch configured to intermittently couple the first and second batteries to the load under control of the switch control module.

3. The power source of claim 2 wherein the switch comprises a first switch configured to intermittently couple the first battery to the load under control of the switch control module, and a second switch configured to intermittently couple the second battery to the load under control of the switch control module.

4. The power source of claim 3 wherein the first and second switches each comprises a field effect transistor.

5. The power source of claim 3 wherein the power management module is further configured to measure the current supplied to the load, the switch control module being further configured to control the switch as a function of the measured current.

6. The power source of claim 5 wherein the switch control module is further configured to control the switch such that the first and second batteries are continuously coupled to the load if the measured current is below a threshold.

7. The power source of claim 5 wherein the switch control module is further configured to control the switch such that each of the first and second batteries are intermittently coupled to the load if the measured current reaches a threshold for a period of time.

8. The power source of claim 3 wherein the switch control module is further configured to control the switch such that the first battery is coupled to the load before removing the second battery from the load.

9. The power source of claim 1 wherein the switch control module is further configured to control the switch as a function of voltage measured at each of the first and second batteries.

10. The power source of claim 9 wherein the selection module is further configured to control the switch to couple one of the first and second batteries having the highest voltage to the load.

11. A power source, comprising:

first and second batteries; and

means for operating each of the first and second batteries in a pulse current discharge mode while supplying continuous current to a load.

12. The power source of claim 11 wherein the means for operating each of the first and second batteries in a pulse discharge mode comprises a first switch configured to intermittently couple to the first battery to the load, a second switch configured to intermittently couple the second battery to the load, and means for controlling the first and second switches.

13. The power source of claim 12 wherein the means for operating each of the first and second batteries in a pulse discharge mode further comprises means for measuring the current supplied to the load, the means for controlling the first and second switches being responsive to the measured current.

14. The power source of claim 12 wherein the means for controlling the first and second switches is configured to couple the first battery to the load before removing the second battery from the load.

15. The power source of claim 12 wherein the means for controlling the first and second switches is responsive to voltage measured at each of the first and second batteries.

16. A power source, comprising:

first and second batteries;

a switch coupled to the first and second batteries; and

a switch control module configured to operate the switch such that each of the first and second batteries are intermittently coupled to a load.

17. The power source of claim 16 wherein the switch comprises a first switch coupled to the first battery and a second switch coupled to the second battery, the switch control module further being configured to control the first and second switches to intermittently couple the first and second batteries to the load.

18. The power source of claim 17 wherein the first and second switches each comprises a field effect transistor.

19. The power source of claim 16 further comprising means for measuring the current supplied to the load, and wherein the switch control module is further configured to control the switch a function of the measured current.

20. The power source of claim 19 wherein the switch control module is further configured to control the switch such that the first and second batteries are continuously coupled to the load if the measured current is below a threshold.

21. The power source of claim 19 wherein the switch control module is further configured to control the switch such that each of the first and second batteries are intermittently coupled to the load if the measured current crosses a threshold for a period of time.

22. The power source of claim 16 wherein the switch control module is further configured to control the switch such that the first battery is coupled to the load before the second battery is removed from the load.

23. The power source of claim 16 wherein the switch control module is further configured to control the switch as a function of voltage measured at each of the first and second batteries.

24. The power source of claim 23 wherein the switch control module is further configured to control the switch to couple one of the first and second batteries having the highest voltage to the load.

25. A method of supplying current to a load from first and second batteries, comprising:

connecting the first and second batteries to the load;

disconnecting the first battery from the load while maintaining the connection between the second battery and the load;

reconnecting the first battery to the load while maintaining the connection between the second battery and the load; and

disconnecting the second battery from the load while maintaining the connection between the first battery and the load.

26. The method of claim 25 wherein the connection between the first battery and the load is made with a first field effect transistor and the connection between the second battery and the load is made with a second field effect transistor.

27. The method of claim 25 further comprising determining that the current supplied to the load crosses a threshold for a period of time, the disconnection of the first battery from the load being in response to such determination.

28. The method of claim 25 further comprising determining that a voltage measured at the second battery exceeds a voltage measured at the first battery, the disconnection of the first battery from the load being in response to such determination.

29. The method of claim 28 further comprising determining that the voltage measured at the second battery is substantially equal to the voltage measured at the first battery after the first battery is disconnected from the load, the reconnection of the first battery to the load being in response to such determination that the measured voltages at the first and second batteries are substantially equal.

30. A wireless communications device, comprising:

a processor configured to support wireless communications;

first and second batteries; and

a power management module configured to operate each of the first and second batteries in a pulse current discharge mode while supplying continuous current to the processor.

31. The wireless communications device of claim 30 wherein the power management module comprises a switch control module, and a switch configured to intermittently couple the first and second batteries to the processor under control of the switch control module.

32. The wireless communications device of claim 31 wherein the switch comprises a first switch configured to intermittently couple the first battery to the processor under control of the switch control module, and a second switch configured to intermittently couple the second battery to the processor under control of the switch control module.

33. The wireless communications device of claim 32 wherein the first and second switches each comprises a field effect transistor.

34. The wireless communications device of claim 32 wherein the processor is further configured to operate in an idle state or a traffic state, the switch control module further being configured to control the switch as a function of the processor state.

35. The wireless communications device of claim 34 wherein the switch control module is further configured to control the switch such that the first and second batteries are continuously coupled to the processor if the processor is in the idle state.

36. The wireless communications device of claim 34 wherein the switch control module is further configured to control the switch such that each of the first and second batteries are intermittently coupled to the processor if the processor is in the traffic state.

37. The wireless communications device of claim 34 wherein the power control module is further configured to determine the processor state as a function of the current supplied to the processor.

38. The wireless communications device of claim 30 wherein the switch control module is further configured to control the switch as a function of voltage measured at each of the first and second batteries.

39. The wireless communications device of claim 38 wherein the selection module is further configured to control the switch to couple one of the first and second batteries having the highest voltage to the load.